

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/677,395

Applicant(s)

LETANT ET AL.

Examiner

Robert T. Crow

Art Unit

1634

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 10 June 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: None.
Claim(s) objected to: None.
Claim(s) rejected: 1-9 and 12-18.
Claim(s) withdrawn from consideration: 10 and 11.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s) _____.
13. ☒ Other: Notice of References Cited.

/Diana B. Johannsen/
Primary Examiner, Art Unit 1634

Continuation of 11, does NOT place the application in condition for allowance because: Applicant's arguments filed 10 June 2008 (i.e., the "Remarks") have been fully considered but they are not persuasive for the reason(s) listed below.

A. Applicant argues on page 6 of the Remarks that the examiner has failed to establish that DNA polymerase I (i.e., the Pol I polymerase of Branton et al) comprises functional groups because Stryer fails to teach DNA polymerase I is a protein.

However, Branton et al specifically teaches the crosslinking of the polymerase to the aperture forms a protein solid-state complex (pages 38, lines 24-30). Thus, a thorough review of Branton et al clearly indicates that DNA polymerase is a protein.

In addition, to further aid in Applicant's understanding of the prior art, the examiner has included pages 17 and 576 of Stryer. Page 576 clearly states that DNA polymerase I is a polypeptide (i.e., protein). Page 17 of Stryer further teaches that polypeptides are formed from amino acids, which, as stated in the previous Office Action, have functional groups.

Thus, the examiner asserts that the DNA polymerase I of Branton et al is, in fact, a protein and does, in fact, comprise functional groups, and that, in fact, the rejections is not based on "probabilities or possibilities" as argued by Applicant.

B. Applicant argues on pages 8-9 of the Remarks that no showing of a substitution of the ring of Hager for the polymerase of Branton et al would work or allow the device of Branton et al to operate because the crosslinkers may not couple to the molecule of Hager, the diameter of the molecule of Hager may change, single stranded DNA may not pass through the aperture, and that the invention may not work.

However, it is noted that Branton et al specifically teach the use of electrodes to induce a polymer to traverse from one side of the membrane (i.e., containing the aperture) to the other side of the membrane (page 25-, line 30-page 26, line 10). Thus, the teaching of a polymerase as a molecular motor merely represents a single embodiment of the apparatus of Branton et al.

In addition, Hager clearly suggests the construction of rigid macrocycles whose diameters do not change (page 2686, column 1, last paragraph). Also, as stated in the previous rejections, Hager also clearly teaches that macro-cycles are host molecules that recognize guest molecules by precise complementarity (page 2687, column 2, lines 19-25) and can act as artificial enzymes (page 2687, last two lines-page 2688, first two lines).

In addition, MPEP 716.01(c) makes clear that "The arguments of counsel cannot take the place of evidence in the record" (In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965)). Thus, Applicant's arguments that the various parameters listed above are not predictable cannot take the place of evidence in the record.

Finally, the Response above should not be construed as an invitation to file an after final declaration. See MPEP 715.09 [R-3].

C. Applicant argues on page 9 and on pages 10-11 of the Remarks that page 2689 of Hager states that precursors couple to the solid substrate couple together, voiding the reaction that creates the ring, thus teaching away from immobilization of the rigs to a solid support.

However, Applicant's citation is directed specifically to solid state reactions of precursors of macrocyclic ring, nor the preformed ring itself. Thus, Applicant's citation has no bearing on the attachment of a preformed ring onto a solid substrate after formation of the ring.

D. On page 11 of the Remarks, Applicant reiterates the argument that Branton et al relies on DNA polymerase as a biological motor.

However, as noted above, Branton et al specifically teach the use of electrodes to induce a polymer to traverse from one side of the membrane (i.e., containing the aperture) to the other side of the membrane (page 25-, line 30-page 26, line 10). Thus, the teaching of a polymerase as a molecular motor merely represents a single embodiment of the apparatus of Branton et al.

E. Applicant's remaining arguments rely on the alleged deficiencies of Branton et al, which are discussed above. Because the arguments regarding Branton et al were not persuasive, the previous rejections are maintained.

/Robert T. Crow/
Examiner, Art Unit 1634.